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AP188TP

PATENT

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Onur G. Guleryuz                      Group Art Unit: 2625  
Serial No.: 10/729,663                      Examiner: Sheela C. Chawan  
Filed: December 5, 2003  
Title: Method and Apparatus for Segmentation of Compound Documents  
Having Low Resolution Halftones

## TERMINAL DISCLAIMER AND CERTIFICATE UNDER 37 CFR §3.73(b)

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Your petitioner, Seiko Epson Corporation, a corporation duly organized under the laws of Japan, having a principal office at 3-5, Owa 3-chome, Suwa-shi, Nagano-ken, 392-8502 Japan, and duly represented by the undersigned, represents that it is the assignee of the full title and interest in and to the above-identified application, Serial No. 10/729,663, filed December 5, 2003, as evidenced by the Assignments recorded on December 5, 2003 at Reel 014817, Frame(s) 0835-0836, and on April 19, 2004 at Reel 014531, Frame(s) 0408-0410.

Your petitioner hereby disclaims the terminal part, if any, of any patent granted on the above-identified application which would extend beyond the expiration date of the full statutory term of any U.S. patent issuing from application Serial No. 10/625,107, filed on or about the 23<sup>rd</sup> day of July 2003, and hereby agrees that any patent so granted on the above-identified application shall be enforceable only for and during such period that the legal title to said patent shall be the same as the legal title to any U.S. patent issuing from application Serial No. 10/625,107, this agreement to run with any patent granted on the above-identified application and to be binding upon the grantee, its successors or assigns.

Your petitioner does not disclaim any terminal part of any patent granted on the above-identified application prior to the expiration date of the full statutory term of any U.S. patent issuing from application Serial No. 10/625,107, in the event that subsequent hereto any U.S. patent issuing from application Serial No. 10/625,107, expires for failure to pay a maintenance fee, is held unenforceable, is found invalid, is the subject of any disclaimer under 37 CFR §1.321(a), has all claims canceled by a reexamination certificate or is otherwise terminated prior to the expiration of its statutory term as presently shortened by any terminal disclaimer.

Petitioner is the assignee of the entire interest in and to the above-identified application, as evidenced by the above-identified Assignments, copies of which are attached to this disclaimer.

Customer No. 20178  
Terminal Disclaimer.doc

AP188TP

10/729,663

Terminal Disclaimer

For submissions on behalf of Seiko Epson Corporation, the undersigned, whose title is supplied below, is empowered to act on behalf of the Petitioner

Date: January 6, 2006By: Michael T. Gabrik

Michael T. Gabrik  
Attorney for Petitioner  
Registration No. 32,896

Epson Research and Development, Inc.  
Intellectual Property Department  
150 River Oaks Parkway, Suite 225  
San Jose, CA 95134  
Customer No. 20178  
Phone: (408) 952-6000  
Facsimile: (408) 954-9058

**UNITED STATES PATENT AND TRADEMARK OFFICE**UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND  
DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

JULY 06, 2004

PTAS  
EPSON RESEARCH AND DEVELOPMENT, INC.  
MICHAEL T. GABRIK  
INTELLECTUAL PROPERTY DEPARTMENT  
150 RIVER OAKS PARKWAY, SUITE 225  
SAN JOSE, CALIFORNIA 95134

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SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 12/05/2003

REEL/FRAME: 014817/0835  
NUMBER OF PAGES: 2

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

## ASSIGNOR:

GULERYUZ, ONUR G.

DOC DATE: 12/04/2003

## ASSIGNEE:

EPSON RESEARCH AND DEVELOPMENT,  
INC.  
150 RIVER OAKS PARKWAY, SUITE 225  
SAN JOSE, CALIFORNIA 95134

SERIAL NUMBER: 10729663

FILING DATE: 12/05/2003

PATENT NUMBER:

ISSUE DATE:

TITLE: METHOD AND APPARATUS FOR SEGMENTATION OF COMPOUND DOCUMENTS HAVING  
LOW RESOLUTION HALFTONES

JUL 12 2004

ENCLOSURE

P.O. Box 1450, Alexandria, Virginia 22313-1450 - www.uspto.gov

014817/0835 PAGE 2

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<p>1. Name of conveying party(ies): Onur G. Guleryuz</p> <p>12.5.03</p> <p>Additional name(s) of conveying party(ies) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>2. Name and address of receiving party(ies):</p> <p>Name: <i>Epson Research and Development, Inc.</i></p> <p>Internal Address:</p> <p>Street Address: <i>150 River Oaks Parkway, Suite 225 San Jose, California 95134</i></p> <p>Additional name(s) and addresses attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>
<p>3. Nature of Conveyance:</p> <p><input checked="" type="checkbox"/> Assignment <input type="checkbox"/> Merger <input type="checkbox"/> Security Agreement <input type="checkbox"/> Change of Name <input type="checkbox"/> Other</p> <p>Execution Date: December 4, 2003</p>	
<p>4. Application number(s) or patent number(s):</p> <p>15729663</p> <p>If this document is being filed together with a new application, the execution date of the application is: December 4, 2003</p> <p>A. Patent Application No(s). B. Patent No(s).</p> <p>Additional numbers attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	
<p>5. Name and address of party to whom correspondence concerning document should be mailed:</p> <p>Intellectual Property Department Epson Research and Development, Inc. 150 River Oaks Parkway, Suite 225 San Jose, CA 95134 Customer No. 20178</p>	<p>6. Total number of applications and patents involved: 1</p> <p>7. Total fee (37 CFR 3.41)..... \$40.00 <input type="checkbox"/> Enclosed <input checked="" type="checkbox"/> Authorized to be charged to deposit account.</p> <p>8. Deposit Account Number: 19-2746</p>
<p align="center"><b>DO NOT USE THIS SPACE</b></p>	
<p>9. Statement and signature:</p> <p><i>To the best of my knowledge and belief, the foregoing information is true and correct and any copy is a true copy of the original document.</i></p> <p><i>Michael T. Gabrik</i> Date: December 5, 2003</p> <p>Michael T. Gabrik Registration No. 32,896</p> <p>Total number of pages including cover sheet, attachments and document: 2</p>	

12/24/2003: LHWELLER: 00000170: 192746: 10729663

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## ASSIGNMENT

PATENT

For good and valuable consideration, the receipt of which is hereby acknowledged, I, the undersigned,

Onur G. Guleryuz

who have created a certain invention for which an application for United States Letters Patent has been executed by me concurrently herewith and entitled:

**METHOD AND APPARATUS FOR SEGMENTATION OF COMPOUND DOCUMENTS HAVING LOW  
RESOLUTION HALFTONES**

Do hereby sell, assign and transfer to EPSON RESEARCH AND DEVELOPMENT, INC., a corporation of California, having a place of business at 150 River Oaks Parkway, Suite 225, San Jose, California 95134, its successors, assigns, and legal representatives, the full and exclusive right to said invention and said application and to any and all inventions described in said application for the United States, its territorial possessions and all foreign countries, and the entire right, title and interest in and to any and all Letters Patent which may be granted therefor in the United States, its territorial possessions and all foreign countries; and in and to any and all continuations-in-part, continuations, divisions, substitutes, reissues, extensions thereof, and all other applications for Letters Patent relating thereto which have been or shall be filed in the United States, its territorial possessions and/or any foreign countries, and all rights, together with all priority rights, under any of the international conventions, unions, agreements, acts, and treaties, including all future conventions, unions, agreements, acts, and treaties;

Agree that EPSON RESEARCH AND DEVELOPMENT, INC., hereinafter referred to as Assignee, may apply for and receive Letters Patent for said invention and said inventions, hereinafter referred to as said invention, in its own name, in the United States, its territorial possessions, and all foreign countries; and that, when requested to carry out in good faith the intent and purpose of this assignment, at the expense of said Assignee, its successors, assigns and legal representatives, the undersigned will execute all continuations-in-part, continuations, divisions, substitutes, reissues, extensions thereof, execute all rightful oaths, assignments, powers of attorney and other papers, testify in any legal or quasi legal proceedings; communicate to said Assignee, its successors, assigns or legal representatives all facts known to the undersigned relating to said invention and the history thereof; and generally do everything possible which said Assignee, its successors, assigns, or legal representatives shall consider desirable for aiding in securing, maintaining and enforcing proper patent protection for said invention and for vesting title to said invention and all applications for patents on said invention in said Assignee, its successors, assigns, or legal representatives; and

Covenant with said Assignee, its successors, assigns, or legal representatives that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

IN TESTIMONY WHEREOF I have hereunto set my signature on the date indicated below.

Date: 12 / 04 / 2003  
Month/Day/Year

  
Onur G. Guleryuz



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231



\*700079341A\*

APRIL 27, 2004

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EPSON RESEARCH AND DEVELOPMENT, INC.  
MICHAEL T. GABRIK  
INTELLECTUAL PROPERTY DEPARTMENT  
150 RIVER OAKS PARKWAY, SUITE 225  
SAN JOSE, CALIFORNIA 95134

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RECORDATION DATE: 04/19/2004

REEL/FRAME: 014531/0408  
NUMBER OF PAGES: 3

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:  
EPSON RESEARCH AND DEVELOPMENT,  
INC.

DOC DATE: 03/17/2004

ASSIGNEE:  
SEIKO EPSON CORPORATION  
4-1 NISHISHINJUKU 2-CHOME,  
SHINJUKU-KU  
TOKYO, JAPAN

SERIAL NUMBER: 10729663  
PATENT NUMBER:

FILING DATE: 12/05/2003  
ISSUE DATE:

OPR/ASSIGNMENTS

4/28/04 12:30 PAGE 3/4 R11 FAX

014531/0408 PAGE 2

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ASSIGNMENT DIVISION  
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<p>4. Application number(s) or patent number(s): If this document is being filed together with a new application, the execution date of the application is:</p> <p>A. Patent Application No(s). 10/729,663</p> <p>B. Patent No(s).</p> <p>Additional numbers attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>			
<p>5. Name and address of party to whom correspondence concerning document should be mailed:</p> <p>Intellectual Property Department Epson Research and Development, Inc. 150 River Oaks Parkway, Suite 225 San Jose, CA 95134 Customer No. 20178</p>		<p>6. Total number of applications and patents involved: 1</p> <p>7. Total fee (37 CFR 3.41).....\$40.00 <input type="checkbox"/> Enclosed <input checked="" type="checkbox"/> Authorized to be charged to deposit account.</p> <p>8. Deposit Account Number: <u>19-2746</u></p>	
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<p>9. Statement and signature: To the best of my knowledge and belief, the foregoing information is true and correct and any copy is a true copy of the original document.</p> <p>Michael T. Gabrik <u>Michael T. Gabrik</u> Date: 04/19/04 Registration No. 32,896</p> <p>Total number of pages including cover sheet, attachments and document: 9</p>			

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<b>3. Nature of Conveyance:</b>  <input checked="" type="checkbox"/> Assignment <input type="checkbox"/> Merger <input type="checkbox"/> Security Agreement <input type="checkbox"/> Change of Name <input type="checkbox"/> Other Execution Date: March 17, 2004		Additional name(s) and addresses attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
<b>4. Application number(s) or patent number(s):</b> If this document is being filed together with a new application, the execution date of the application is:  <table border="0"> <tr> <td>A. Patent Application No(s). 10/729,663</td> <td>B. Patent No(s).</td> </tr> </table> Additional numbers attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				A. Patent Application No(s). 10/729,663	B. Patent No(s).	
A. Patent Application No(s). 10/729,663	B. Patent No(s).					
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		<b>7. Total fee (37 CFR 3.41).....\$40.00</b> <input type="checkbox"/> Enclosed <input checked="" type="checkbox"/> Authorized to be charged to deposit account.				
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Michael T. Gabrik Registration No. 32,896	<u>Michael T. Gabrik</u>	Date: 04/19/04				
Total number of pages including cover sheet, attachments and document:			3			

AP188TPASSIGNMENT  
Corporate

EPSON RESEARCH AND DEVELOPMENT, INC., a California Corporation, having a principal place of business at 150 River Oaks Parkway, Suite 225, San Jose, California 95134 (hereafter the "Assignor"), is the owner by respective Assignment of United States Patent Application identified below (hereafter sometimes called the "Patent Application").

SEIKO EPSON CORPORATION, a corporation of Japan, having a place of business at 4-1 Nishishinjuku 2-chome, Shinjuku-ku Tokyo, Japan (hereafter the "Assignee"), desires to acquire all of the rights to the Patent Application and all inventions described and claimed therein.

THEREFORE, in consideration of the sum of One Dollar (\$1.00) or equivalent and other good and valuable consideration paid to it, Assignor hereby sells and assigns to the Assignee the entire right, title and interest in and to the Patent Application identified below, and all inventions described and claimed therein, in any and all Letters Patent therefor, and in any and all reissues, extensions, renewals, reexaminations, divisions and continuations of such applications or Letters Patent to the full end of the term or terms for which such Letters Patent issue, such entire right, title and interest to be held and enjoyed by the above-named Assignee the same as they would have been held and enjoyed by the Assignor had this Assignment and sale not been made.

<u>ERD Case No.</u>	<u>U. S. Serial No.</u>	<u>U. S. Filing Date</u>	<u>Title</u>
AP188TP	10/729,668	December 5, 2003	Method and Apparatus for Segmentation of Compound Documents Having Low Resolution Halftones

By its undersigned representative, the Assignor agrees

a. to execute all papers necessary in connection with the Patent Application and any continuing, divisional, reissue, reexamination or corresponding application thereof and also to execute a separate Assignment in connection with such application as the Assignee may deem necessary or expedient;

b. to execute all papers necessary in connection with any interference which may be declared concerning the Patent Application or any

AP188TP

10/729,663

Corporate Assignment

continuation, division, reissue or reexamination thereof and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference; and

c. to perform all affirmative acts which may be necessary to obtain a grant of a valid United States patent to the Assignee on the Patent Application and on any continuation, division, reissue or reexamination of the Patent Application.

The Assignor hereby covenants that it has the full right to convey the entire interest herein assigned, and that it has not executed, and will not execute, any agreement in conflict therewith.

EPSON RESEARCH AND DEVELOPMENT, INC., a California Corporation, certifies that it is the Assignee of the entire right, title and interest in the Patent Application identified above by virtue of Assignment from the inventor(s) of the Patent Application identified above. The Assignment is to be recorded in the Patent and Trademark Office as identified below.

<u>ERD</u> <u>Case No.</u>	<u>U. S. Serial</u> <u>No.</u>	<u>Assignment</u> <u>Execution Date</u>
AP188TP	10/729,663	December 4, 2003

The undersigned is empowered to sign this certificate on behalf of the Assignor.

IN WITNESS WHEREOF, executed by the Assignor's undersigned representative on the date following the undersigned's name.

EPSON RESEARCH AND DEVELOPMENT, INC.

By:

Junichi Okada  
Junichi Okada  
President

Date

Mar. 17/04